

What is claimed is:

1. A method for the systematic multi-tiered treatment of heart disease by delivery of therapeutic growth factor proteins comprising the steps of:

- a.) selecting a patient displaying symptoms of heart disease;
- b.) administering at least one dose of an effective amount of a first therapeutic growth factor protein formulation by oral inhalation;
- c.) monitoring levels of CPK-MB in the patient;
- d.) determining whether administration of the growth factor protein formulation was effective in treating the symptoms of heart disease in the patient;
- e.) administering one or more additional doses of a second growth factor protein formulation by a method of delivery more invasive than delivery by oral inhalation; and
- f.) repeating steps c.) through e.) until there is a clinical indication of amelioration of the symptoms of heart disease in the patient, or until there is a contraindication to continued treatment.

2. The method of claim 1, wherein the protein formulation comprises a growth factor protein selected from the group consisting of FGF-1, FGF-2, VEGF, and mixtures thereof.

3. The method of claim 1 wherein the symptoms of heart disease are acute.

4. The method of claim 3 wherein the acute symptoms of heart disease are brought on by a condition selected from the group consisting of myocardial infarct, unstable angina, an acute anginal attack, and reperfusion injury.

5. The method of claim 4, wherein the reperfusion injury is induced by a procedure selected from the group consisting of thrombolytic therapy, bypass surgery and angioplasty.

6. The method of claim 1 wherein the symptoms of heart disease are chronic.

7. A method for the administration of therapeutic amounts of a growth factor protein formulation in the treatment of heart disease comprising the step of delivering the protein formulation by inhalation therapy.

8. The method of claim 7, wherein the protein formulation is a dry powder formulation.

9. The method of claim 7, wherein the protein formulation is a liquid aerosol formulation.

10. A method for monitoring clinical effectiveness of administration of a growth factor protein formulation in the treatment of heart disease, the method comprising the steps of:

a.) obtaining a sample of a biological fluid from a patient displaying symptoms of heart disease;

b.) performing an assay of the biological fluid to determine an amount of CPK-MB present in the fluid;

c.) administering a therapeutic amount of a growth factor protein formulation to the patient; and

d.) repeating steps b.) and c.) until the assayed amount of CPK-MB in the biological fluid has decreased by an amount sufficient to indicate the clinical effectiveness of the administration of the growth factor protein formulation.

11. The method of claim 10, wherein the protein formulation comprises a growth factor protein selected from the group consisting of FGF-1, FGF-2, VEGF, and mixtures thereof.

12. The method of claim 10 wherein the heart disease is characterized by acute symptoms.

13. The method of claim 12 wherein the acute symptoms of heart disease are brought on by a condition selected from the group consisting of myocardial infarct, unstable angina, an acute anginal attack, and reperfusion injury.

14. The method of claim 13, wherein the reperfusion injury is induced by a procedure selected from the group consisting of thrombolytic therapy, bypass surgery and angioplasty.

15. The method of claim 10 wherein the heart disease is characterized by symptoms that are chronic.